ZAKHARENKO, A.G., dotsent, kand.istoricheskikh nauk, mayor zapasa

The reinforcement of fortifications on the Russian northwestern frontier in the early phase of the Northern War. Sbor.dokl. Voen.ist.sek. no.3:62-78 '60. (MIRA 15:9)
(Northern War, 1700-1721)
(Fortifications, Old)

ZAKHARENKO, A. P.

ZAKHARENKO, A. P. "The Seed Productivity of Red Clover and some Methods of Increasing it under the Conditions of Leningrad Oblast." All-Union Order of Lenin Academy of Agricultural Sciences imeni V. I. Lenin. All-Union Sci Res Inst of Plant Growing. Leningrad, 1956. (Dissertation for the Degree of Candidate in Agricultural Science)

So: Knizhnaya Letopis', No. 19, 1956.

L 7955-66 EWT(l)/EWA(h)

ACC NR: AP5025748 SOURCE CODE: UR/0286/65/000/018/0095/0095

AUTHORS: Zakharenko, A. ...; Baranov, B. A.; Petrov, V. G.

ORG: none

TITLE: Phase sensitive amplifier. Class 42, No. 174859 [announced by State Committee for Radio Electronics, SSSR (Organizatsiya gosudarstvennogo komiteta po radioelektronike SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 95

TOPIC TAGS: transistorized amplifier, solid state amplifier

ABSTRACT: This Author Certificate presents a phase-sensitive ac amplifier made [illegible] transistors. To decrease the [illegible] is connected to the [illegible]

Card 1/2

UDC: 681.14

L 7955-66

ACC NR: AP5025748

stabilizing anodes, is connected through a resistor to the amplifier power supply [illegible] reference bias current and to the base of the amplifier [illegible] and to the phase-sensitive rectifier [illegible]

SUB CODE: EC, SUBM DATE: [illegible]

Card 2/2

BRUK, Moisey Abramovich; RIKHTER, Andrey Aleksandrovich; GOL'TRAF, I.S., kand.tekhn.nauk, retsenzent; ZAKHARENKO, B.A., kand.tekhn.nauk, retsenzent; SULOYEV, A.V., nauchnyy red.; VLASOVA, Z.V., red.; CHISTYAKOVA, R.K., tekhn. red.

[Operating conditions of marine diesel engines] Rezhimy raboty sudovykh dizelei. Leningrad, Sudpromgiz, 1963. 483 p. (MIRA 16:6)

(Marine diesel engines)

KURITS, Aleksandr Ariyevich; VODOLAZHCHENKO, Vitaliy Vasil'yevich; GRINSBERG, Filipp Grigor'yevich; ROZENBLIT, Gennadiy Borisovich; SIMSON, Al'fred Eduardovich; NAYDENKO, O.A., kand. tekhn. nauk, retsenzent; RABOVSKIY, V.V., inzh., retsenzent; VOLKOVICH, G.F., retsenzent; ZAKHARENKO, B.A., kand. tekhn. nauk, nauchn. red.; NIKITINA, R.D., red.; SHISHKOVA, L.M., tekhn. red.

[Diesel engines on ships with electric propulsion] Dizeli na sudakh s elektrodvizheniem. [By A.A.Kurits i dr. Leningrad, Sudpromgiz, 1963. 276 p. (MIRA 17:1)

SAMOV, Vitaliy Aleksandrovich; BOTKIN, Petr Petrovich; KHANDOV, Z.A., prof., doktor tekhn. nauk, retsenzent; ANDREYEV, P.F., kand. khim. nauk, retsenzent; ZAKHARENKO, B.A., kand.tekhn.nauk, nauchnyy red.; VLASOVA, Z.V., red.; KRYAKOVA, D.M., tekhn.red.

[Fuel for diesel transportation engines]Toplivo dlia transportnykh dizelei. Leningrad, Sudpromgiz, 1963. 355 p. (MIRA 16:4)

(Diesel fuels)

KHANDOV, Zosima Aleksandrovich; YERMAKOV, Vasiliy Fedorovich; BOTKIN, P.P., kand. tekhn. nauk, retsenzent; AL'TMAN, I.R., inzh., retsenzent; ZAKHARENKO, B.A., nauchn. red.; VASIL'YEVA, N.N., red.; KRYAKOVA, D.M., tekhn. red.

[Marine diesel engine operations with a two-stage fuel feed] Rabota sudovogo dizelia s dvukhfaznoi podachei topliva. Leningrad, Sudpromgiz, 1963. 82 p. (MIRA 16:12)
(Marine diesel engines)

ZAKHARENKO, E.A.; MAGARIK, K.N.; NIKOL'SKIY, S.S.

Using radioactive indicators in determining the wear of piston rings. Avt.prom. no.6:23-26 Je '60. (MIRA 13:8)
(Piston rings--Testing) (Radioactive tracers)

ZAKHARENKO, B.A., kand.tekhn.nauk

Conference on the use of high speed diesel engines. Sudostroenie 28 no.8:62 Ag '62. (MIRA 15:8)
(Marine diesel engines)

S/113/60/000/006/003/006
D269/D302

AUTHORS: Zakharenko, B. A., Magarik, K. N. and Nikol'skiy, S. S.

TITLE: Determination of the wear of a piston ring with the help of radioactive indicators

PERIODICAL: Avtomobil'naya promyshlennost', no. 6, 1960, 23-26

TEXT: The author deals with experimental research carried out on the wear of an engine piston ring during the starting-and-heating-up period by the use of radioactive indicators. The tests were conducted on a two-cylinder engine operating with a 5A2-24 8,5/11 (5D2-2ch 8.5/11) compressed ignition and having a capacity of 10 h.p. at 1,500 rpm. No constructional changes were performed on the engine, merely the fine and rough oil-purification filters had been removed. A diagram of the experimental installation is shown. The serially-produced upper piston packing ring was subjected to activation with the help of irradiation in a nuclear reagent. After irradiating it for four weeks with a 10^{12} neutron/cm^2.sec neutron flow and after an additional period of one month needed

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Determination of the wear...

for the disintegration of Mn^{54}, P^{32}, etc., highly-active isotopes, the ring became gamma-active by Fe^{50}. Before the beginning of tests, the specific activity of the ring was less than 0.05 m/curie/g. An irradiation of more than 24 days did not yield any substantial results. The activity of the wear products was measured by allowing the oil to circulate continuously through the computing device. For this purpose, an outside oil circulation system was assembled on the experimental installation. To prevent the wear products from settling, the computing chamber on the computing device was built in the form of a coil. A specially-designed scintillation computing device permitted one to increase the officiency of measuring the oil radioactivity by 53 times. The experiment revealed that the speed of the ring wear stops decreasing and remains constant after the engine has run for 55-60 hours. To determine the effect of the thermal state of the engine on the dynamics of the ring-wear process during the starting period, the temperature of the oil was changed from 9 to 20°C, and that of the water from 3 to 19°C. At the end of each test day, the oil was purified from the wear products with the help of a felt filter. The following three types of oil were used: (1) MC-20 (MS-20), GOST 1013-49(A) (GOST

Card 2/4

Determination of the wear...

1013-49 /A/) oil; (2) 75% MS-20 and 25% transformer oil, as well as GOST 982-53 (B) oil; (3) 50% MS-20 and 50% transformer (V) oil. The characteristics of the wear change of the piston ring during the starting-and-heating-up period of the engine at n = 1, 500 rpm are shown. Experiments showed that the magnitude and the speed of wear during the starting-and-heating-up period depend on the time interval between the startings. To determine the effect of the engine load on the wear, the engine was always started under the same conditions and merely the load time had been changed. The results are presented in graphic form. Table 2 shows the relations existing between the wears of piston rings during the starting period. There are six figures, 2 tables and 3 Soviet-bloc references.

VANSHEYDT, Vsevolod Aleksandrovich. Prinimal uchastiye: SHISHKIN, V.G., kand.tekhn.nauk; EPEL'MAN, T.Ye., kand.tekhn.nauk, retsenzent; ZAKHARENKO, B.A., kand.tekhn.nauk, nauchnyy red.; SHAURAK, Ye.N., red.; FROMKIN, P.S., tekhn.red.

[Marine internal combustion engines; theory] Sudovye dvigateli vnutrennego sgoraniia; teoriia. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl., 1958. 455 p. (MIRA 12:4)
(Marine engines)

KUSHUL', Veniamin Moiseyevich; NAYDENKO, O.K., kand. tekhn. nauk, retsenzent; KAZAKOV, L.M., inzh., retsenzent; ZAKHARENKO, B.A., nauchn. red.; VARKOVETSKAYA, A.I., red.

[New type of internal combustion engine] Novyi tip dvigatelia vnutrennego sgoraniia. Leningrad, Sudostroenie, 1965. 211 p. (MIRA 18:4)

ZAKHARENKO, G.A.

Determining chloropicrin and dichloroethane by thermal decomposition in the presence of an iron oxide catalyst. Zhur. prikl. khim. 34 no.5:1103-1107 My '61. (MIRA 16:8)

1. Odesskiy tekhnologicheskiy institut imeni I.V. Stalina.
(Chloropicrin) (Ethane)

ZAKHARENKO, G.F.

Preparations for the publication of topographic maps in the Sverdlovsk cartographic plant. Geod. i kart. no.6:63-65 Je '57. (MIRA 10:8)
(Map printing)

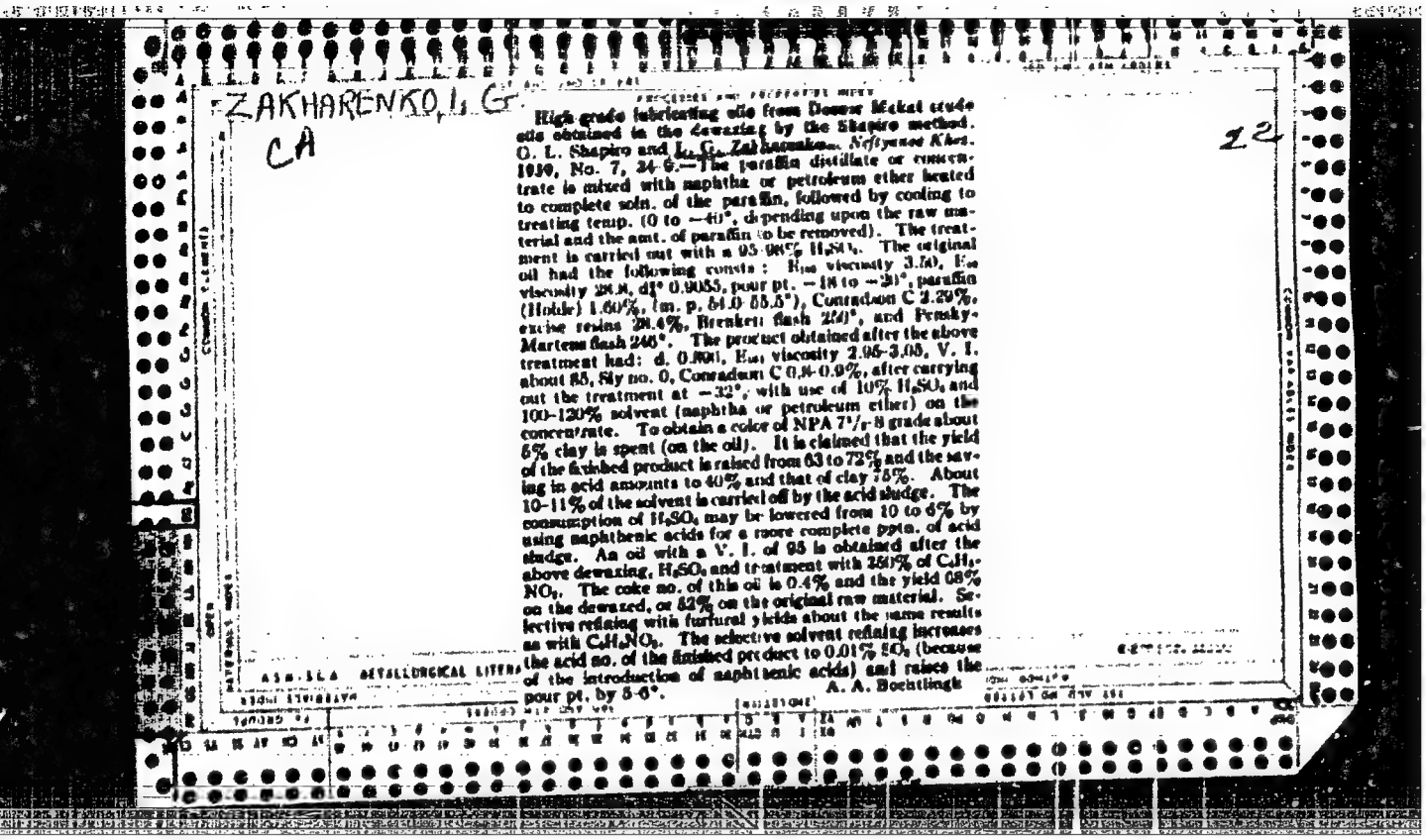
ZAKHARENKO, G.M.

Surgical and conservative treatment in defects of short leg stumps. Ortop., travm.i protez. no.5:12-15 '61. (MIRA 14:8)

1. Iz Leningradskogo nauchno-issledovatel'skogo instituta protezirovaniya (dir. - dotsent M.V.Strukov, nauchnyy rukov. raboty-d-r med.nauk M.S.Pevzner).
(AMPUTATION STUMPS)

ZAKHARENKO, I.I., veterinarnyy vrach (Tyumenskaya oblast'); VINE, A.A., veterinarnyy vrach (Tyumenskaya oblast')

Use of the foot-and-mouth disease virus vaccine type A made by the Siberian Veterinary Scientific Research Station.
Veterinariia 42 no.5:46-47 My '65. (MIRA 18:6)



ZAKHARENKO, I. G.

CA

12

High grade lubricating oils from Dossor Mekat crude oils obtained in the dewaxing by the Shapiro method. O. L. Shapiro and I. G. Zakharenko. *Neftyanoe Khoz.* 1930, No. 7, 34-9.—The paraffin distillate or concentrate is mixed with naphtha or petroleum ether heated to complete soln. of the paraffin, followed by cooling to treating temp. (0 to −40°, depending upon the raw material and the amt. of paraffin to be removed). The treatment is carried out with a 95-98% H_2SO_4. The original oil had the following consts.: E_{50} viscosity 3.50, E_{50} viscosity 28.0, d^{20} 0.9055, pour pt. −18 to −21°, paraffin (Holde) 1.60%, (m. p. 54.0-55.5°), Conradson C 2.29%, excise resins 20.4%, Brenken flash 250°, and Pensky-Martens flash 240°. The product obtained after the above treatment had: d. 0.8901, E_{50} viscosity 2.95-3.05, V. I. about 85, Sly no. 0, Conradson C 0.8-0.9%, after carrying out the treatment at −32°, with use of 10% H_2SO_4 and 100-120% solvent (naphtha or petroleum ether) on the concentrate. To obtain a color of NPA 7½-8 grade about 5% clay is spent (on the oil). It is claimed that the yield of the finished product is raised from 63 to 72% and the saving in acid amounts to 40% and that of clay 75%. About 10-11% of the solvent is carried off by the acid sludge. The consumption of H_2SO_4 may be lowered from 10 to 6% by using naphthenic acids for a more complete ppta. of acid sludge. An oil with a V. I. of 95 is obtained after the above dewaxing, H_2SO_4 and treatment with 250% of $C_6H_5NO_2$. The coke no. of this oil is 0.4% and the yield 68% on the dewaxed, or 42% on the original raw material. Selective refining with furfural yields about the same results as with $C_6H_5NO_2$. The selective solvent refining increases the acid no. of the finished product to 0.01% KO_2 (because of the introduction of naphthenic acids) and raises the pour pt. by 5-6°.

A. A. Boehtlingk

ZAKHARENKO, I.P.

137-58-2-2924

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 102 (USSR)

AUTHOR: Zakharenko, I.P.

TITLE: The Hard-alloy Dies Used for Cold-upsetting Metal Fittings (Tverdosplavnyye matritsy dlya kholodnoy vysadki krepezhnykh detaley)

PERIODICAL: Mashinostroitel', 1957, Nr 8, pp 23-24

ABSTRACT: An account is given of experience gained at the Tomsk Electromechanical Plant in the use of multiple dies consisting of an outer housing, a bushing, and a removable insert piece. The insert piece is made of a hard alloy. The durability of the insert piece is of the order of $10 - 10^2$ times greater than that of dies made from steels U10A and Kh12M. The technique of press-fitting the insert pieces into the dies is described.

M.Ts.

1. Dies--Design 2. Dies--Materials

Card 1/1

ZAKHARENKO, I.P.

AUTHOR: Zakharenko, I.P. 121-4-14/32

TITLE: The Effect of Relieving Taps along the Thread Profile on the Quality of the Tapped Thread (Vliyaniye zatylovaniya metchikov po profilyu na kachestvo narezayemoy rez'by)

PERIODICAL: Stanki i Instrument, 1958, No.4, pp. 28 - 30 (USSR).

ABSTRACT: Relieved taps have been tested under production conditions at the Tomsk Electro-mechanical Plant (Tomskiy elektromekhanicheskiy zavod) imeni V.V. Vakhrushev. The relieving was carried out over the whole length of the threaded portion. The mean tapped thread diameter and the surface finish of the thread were studied in relation to the endurance of the tool. M16X2 standard nuts were tapped, made of 0.45% carbon steel. The taps were of 18% tungsten high-speed steel. The tests yielded a recommended cutting speed of 35 m/min, although for best surface finish much lower speeds are required. The amount of relieving was found to have no regular effect on either the mean diameter or the surface finish.
There are 5 figures.

AVAILABLE: Library of Congress

Card 1/1 1. Taps-Test methods 2. Taps-Test results

AUTHOR: Zakharenko, I.P., Engineer

117-58-7-22/25

TITLE: The Lathe Operator F.A. Kochin (Tokar' F.A. Kochin)

PERIODICAL: Mashinostroitel', 1958, Nr 7, pp 45-46 (USSR)

ABSTRACT: The innovations of F.A. Kochin, lathe operator at the Tomskiy elektromekhanicheskiy zavod imeni V.V. Vakhrusheva (Tomsk Electromechanical Plant imeni V.V.Vakhrushev) are briefly described: a tool holder for 2 cutters for simultaneous chamfering of the hob bore edge and the rim of a work wheel (Figure 1); a special head (Figure 3) holding two cutters and one reamer for three simultaneous cutting operations on a fan blade wheel; a tool holder (Figure 4) for a reamer and grooving cutter for two simultaneous machining operations on housings for the electric "EKB-2M-12" core drill. There are 4 diagrams.

1. Precision lathes—Personnel performance

Card 1/1

ZAKHARENKO, I.P.

Effect of profile relieving of taps on their wear resistance.
Stan. i instr. 29 no.3:33-34 Mr '58. (MIRA 12:1)
(Taps and dies)

25(5) SOV/28-59-2-15/26

AUTHOR: Zakharenko, I.P., Engineer

TITLE: Necessary Additions to the GOST 3449-54 (Neobkhodimyye dopolneniya k GOST 3449-54)

PERIODICAL: Standartizatsiya, 1959, Nr 2, pp 43-47 (USSR)

ABSTRACT: The GOST 3449-54 does not supply fundamental data, confirming the need to back off, regarding all cutting threads of taps with a ground profile. Consequently, tool plants execute this operation according to their own systems and some factories neglect to do it at all. The author stresses the necessity for this operation. The rules of GOST inspection and testing must be adhered to so as to indicate the grade of thread fineness. The GOST 3449-54 must show the necessity to back off all cutting threads with ground profiles, the degree of fineness of the cut threads and the cutting speeds of tested taps made with different grades of steel. There are 4 graphs.

ASSOCIATION: Tomskiy elektromekhanicheskiy zavod im. Vakhrusheva (Tomsk Electro-mechanical Plant imeni Vakhrushev)

Card 1/1

ZAKHARENKO, I.P., inzh.

Needed supplements to the All-Union State Standard 3449-54.
Standartizatsiia 23 no.2:48-49 F '59. (MIRA 12:1)

1.Tomskiy elektromekhanicheskiy zavod imeni Vakhrushova.
(Taps and dies--Standards)

ZAKhARENKO, I. P. Cand Tech Sci — (diss) "Investigation of the Operation of Screw Taps," Tomsk, 1960, 17 pp, 150 copies (Chair of "Machine Tools and Cutting of Metals" of the Tomsk Polytechnical Institute im S. M. Kirov) (KL, 47/60, 102)

ZAKHARENKO, I.P.; KOZHEVNIKOV, D.V.

Dynamometer with induction transmitters for measuring torque.
Priborostroenie no.7:29-30 Jl '60. (MIRA 13:7)
(Dynamometer) (Torque--Measurement)

ZAKHARENKO, I.P.

Effect of lubricating and cooling fluids on the performance of mut taps. Stan. i instr. 31 no. 6:25-28 Je '60. (MIRA 14:2)
(Taps and dies) (Metalworking lubricants)

SAL'NIKOV, Georgiy Pavlovich, inzh.; DIDKOVSKIY, P.V., inzh., retsenzent; DONDIK, I.G., inzh., retsenzent; ZAKHARENKO, I.P., kand. tekhn. nauk, retsenzent; ZEYGERMAKHER, R.S., inzh., retsenzent; KAMENICHNYY, I.S., inzh., retsenzent; MITSKEVICH, Z.A., kand. khim. nauk, retsenzent; NEVSKIY, B.N., inzh., retsenzent; CHEKURNA, RADOMYSEL'SKIY, I.D., kand. tekhn. nauk, retsenzent; M.G., inzh., red.izd-va; SHAFETA, S.M., tekhn. red.

[Brief handbook for mechanical engineers] Kratkii spravochnik mashinostroitelia. Kiev, Gostekhizdat USSR, 1963. 442 p. (MIRA 17:2)

ZAKHARENKO, I.P., kand.tekhn.nauk; PUGACHEVA, O.A.

Processing inlaid parquet with a hard-alloy instrument. Bum. i der. prom. no.3:24-28 Jl-S '63. (MIRA 17:2)

1. Ukrainskiy nauchno-issledovatel'skiy institut sinteticheskikh sverkhtverdykh materialov i instrumenta Gosplana UkrSSR.

ZAKHARENKO, I.P., kand.tekhn.nauk; SIROTA, D.A.; CHEPOVETSKIY, I.Kh.

Introducing a hard-alloy instrument for processing parquets from the wood of tropical species. Bum. i der. prom. no.4: 43-46 O-D '63. (MIRA 17:3)

BAKUL', V.N., kand. tekhn. nauk; ZAKHARENKO, I.P., kand. tekhn. nauk

Diamond wheels for grinding hard-alloy tools. Mashinostroitel' no.10:15-16 O '63. (MIRA 16:12)

ZAKHARENKO, I.P., kand.tekhn.nauk; PUGACHEVA, O.A.

Machining celluloid and wood with hard-alloy tools. Mashinostroitel' no.11:31 N '63. (MIRA 16:11)

ZAKHARENKO, I.P., kand.tekhn.nauk; CHERVETSKIY, I.Kh., inzh.; SIROTA, D.A., inzh.

Knives with glued-in hard-alloy blades. Der. prom. 12 no.6:23-24 Je '63. (MIRA 16:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut sinteticheskikh sverkhtverdykh materialov i instrumenta.

BAKUL', B.N., kand.tekhn.nauk; ZAKHARENKO, I.P., kand.tekhn.nauk;
CHEPOVETSKIY, I.Kh., inzh.

Sharpening hard-alloy wood-cutting instruments with diamond rings.
Der. prom. 12 no.9:8-9 S '63. (MIRA 16:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut sinteticheskikh sverkhtverdykh materialov i instrumenta.

BAKUL', V.N., kand. tekhn. nauk; ZAKHARENKO, I.P., kand. tekhn. nauk; CHEPOVETSKIY, I.Kh., inzh.; STARKOV, V.I., inzh.

Sectional hard-alloy milling cutter with an eccentric clamp. Der. prom. 12 no.12:21-22 D '63. (MIRA 17:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut sinteticheskikh sverkhtverdykh materialov i instrumenta.

ZAKHARENKO, I.P., kand. tekhn. nauk; FEDOSEYEV, L.A.; KRAVCHUK, V.I.

Diamond sharpening of woodcutting hard-alloy tools at the Kiev Woodworking Plant No.1. Bum. i der. prom. no.4:33-34 O-D '64 (MIRA 18:2)

ZAKHARENKO, I.P.; YEVSEYEV, A.F.

Grinding woodcutting tools using synthetic diamond wheels. Der. prom. 14 no.4:24-26 Ap '65. (MIRA 18:5)

ZAKHARENKO, I.P., kand.tekhn.nauk; IMBIRSKIY, V.I.

Processing laminated and glass-reinforced plastic materials by a hard-alloy instrument. Bum. i der. prom. no.1:29-33 Ja-Mr '64. (MIRA 17:6)

ZAKHARENKO, I.P., kand.tekhn.nauk; SIROTA, D.A.

Machine for diamond sharpening of hard-alloy wood-cutting instruments. Bum. i der. prom. no.1:56 Ja-Mr '64. (MIRA 17:6)

ZAKHARENKO, I.P., kand. tekhn. nauk; DYATLOV, A.V.

Standard technological process for grinding and lapping hard-alloy tools with synthetic diamond wheels. Mashinostroitel' no.10:14-16 O '64. (MIRA 17:11)

ZAKHARENKO, I.P., kand. tekhn. nauk; FEDOSEYEV, L.A.

Sharpening and lapping wood-cutting tools with synthetic diamond wheels. Mashinostroitel' no.10:21-23 O '64.

(MIRA 17:11)

ZAKHARENKO, I.P., kand.tekhn.nauk; CHEPOVETSKIY, I.Kh., inzh.

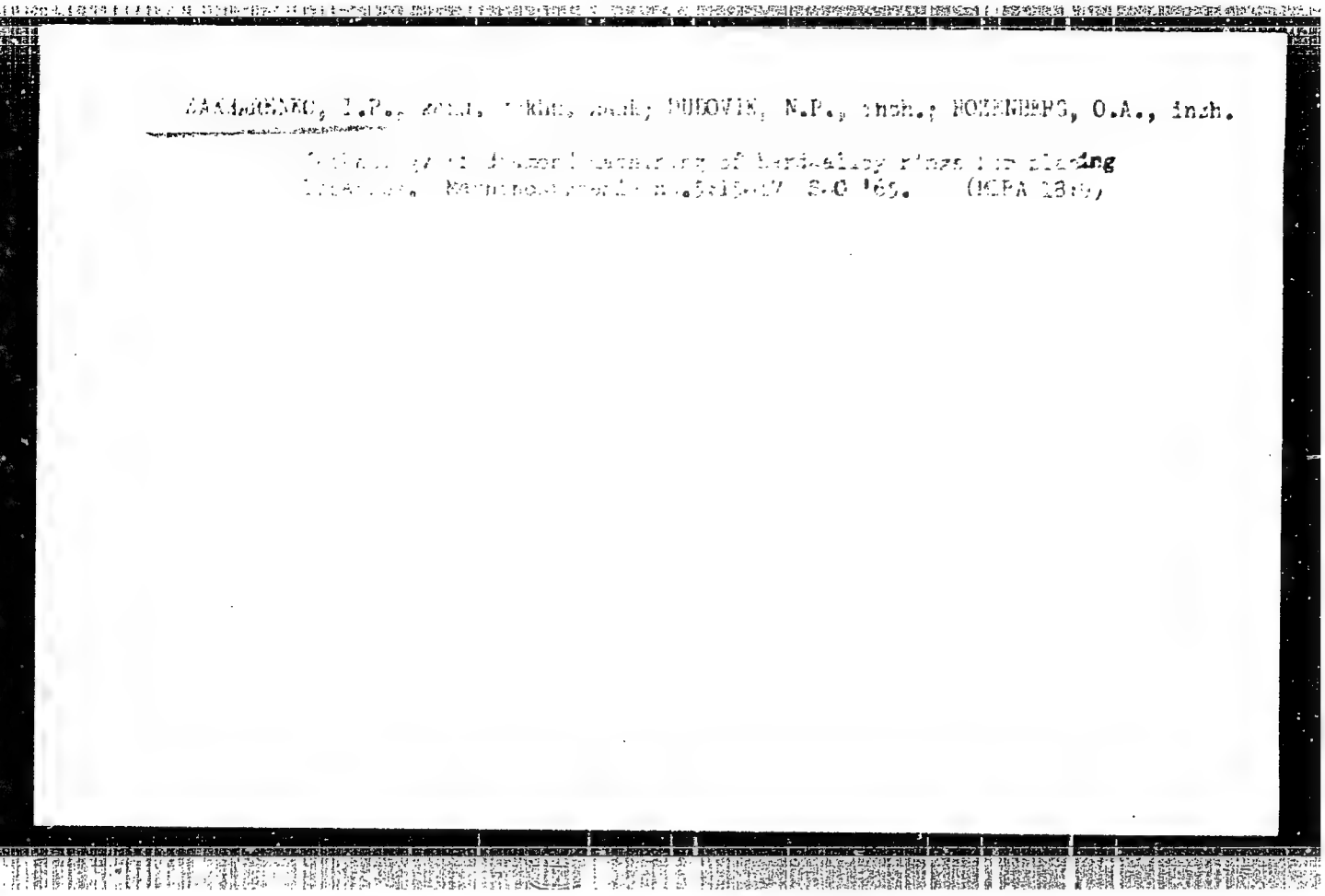
Hard alloy tool set for the processing of parquet. Der. prom. 13
no.4:20-22 Ap '64. (MIRA 17:4)

ZAKHARENKO, I.P.; KURIS, I.M., kand.tekhn.nauk

Workability of particle board by hard-alloy cutting tools. Biul. tekh.-ekon. inform. no.1:21-24 Ja-Mr '65. (MIRA 18:10)

ZAKHARENKO, I.P., kand. tekhn. nauk; FEDOSEYEV, L.A.; KRIVENKO, A.K.

Hard-alloy cutters for hand surfacer and planes. Bum. i der. prom. no.3:25-28 Jl-S '65. (MIRA 18:9)



ZAKHARENKO, I.P., kand. tekhn. nauk; MIL'SHTEYN, M.Z., kand. tekhn. nauk

Diamond grinding and the design of tools. Mashinostroitel' no.7: 29-30 Jl '65. (MIRA 18:7)

BAKUL', V.N., kand. tekhn. nauk; ZAKHARENKO, I.P., kand. tekhn. nauk; BABICH, M.M., kand. tekhn. nauk; NAKUL, I.S., kand. tekhn. nauk; DUBITSKAYA, I.S., kand. tekhn. nauk

Hard-alloy taps. Mashinostroitel' no.12:15-16 D '65.
(MIRA 18:12)

ZAKHARENKO, I.P., kand. tekhn. nauk; KURIS, I.M., inzh.; BABENKO, K.Ya., inzh.

Hard-alloy cutting instrument for ski processing. Der. prom. 14 no.8:25-26 Ag '65. (MIRA 18:10)

1. Institut sverkhtverdykh materialov Gosplana UkrSSR.

ZAKHARENKO, I.P., kand. tekhn. nauk; FEDOSEYEV, L.A.; YURKEVICH, Yu.V.

Machining glass-reinforced plastics with hard-alloy tools.
Mashinostroitel' no. 1:29 Ja '66 (MIRA 19:1)

FEDOTOVA, A.F.; ZAKHARENKO, L.G.

Improving the quality of road-paving viscous bitumens.
Neftepер. i neftekhim. no.2:22-24 '63. (MIRA 17:1)

1. Bakinskiy neftepererabatyvayushchiy zavod im. XXII s"yezda Kommunisticheskoy partii Sovetskogo Soyuza.

15(6) SOV/72-59-1-13/16

AUTHORS: Tsaritsyn, M. A., Zakharenko, N. I., Gulyayev, K . V.

TITLE: Improved Drawing Method of Stained Glaze (Usovershenstvovannyy sposob vytyagivaniya tsvetnogo nakladnogo stekla)

PERIODICAL: Steklo i keramika, 1959, Nr 1, pp 40-43 (USSR)

ABSTRACT: In the Chernyatinskiy stekol'nyy zavod (Chernyatichi Glass Works) a plant was used for this purpose, as shown in figure 1. It was, however, not possible to produce perfect stained signal glass up to the GOST standards. The stained glass applied to the belt showed considerable deficiencies. Figures 2, 3 and 4 show the construction of a plant that obtained good results. The stained glass metal is spread on the colorless glass belt in the form of a thin layer, the thickness of the layer depending on the level of the stained glass metal in the melting tank. The glass production is carried out on a vertical drawing device, the width of the belt being 1200 mm. The performance of this plant is described in detail. As experience has shown, it is advisable to prefer highly aluminiferous beams to fire clay beams for the melting tank of the stained glass because the

Card 1/2

latter may be corroded by the glass metal. When this plant was first introduced the drawing speed amounted to 21 - 23 m/h, after a month it had risen up to 34 m/h. The shuttles were in operation for 21 to 24 hours, the apparatus was running for 500 to 580 hours without any interruption. The usable output amounted from 600 to 620 m^2 daily. By this method it has been possible to produce inexpensive stained glass for building purposes and light filters for signalizing. There are 4 figures.

ASSOCIATION: Chernyatinskiy stekol'nyy zavod
(Chernyatichi Glass Works)

PLEKHANOV, P.S., inzh.; KOSHKIN, V.A., inzh.; KRITININ, I.A., inzh.; Prinimali uchastiye: BAZHENOV, M.M.; VAYNSHTEYN, I.L.; POPOV, B.G.; ZAKHARENKO, N.I.; MANCHEVSKIY, I.V.; GRDINA, Yu.V.; GOVORKOV, A.P.; NESTEROV, N.A.; GRIGORKIN, V.I.

Rolling of high-manganese rails. Stal' 21 no.5:423-425 My '61. (MIRA 14:5)

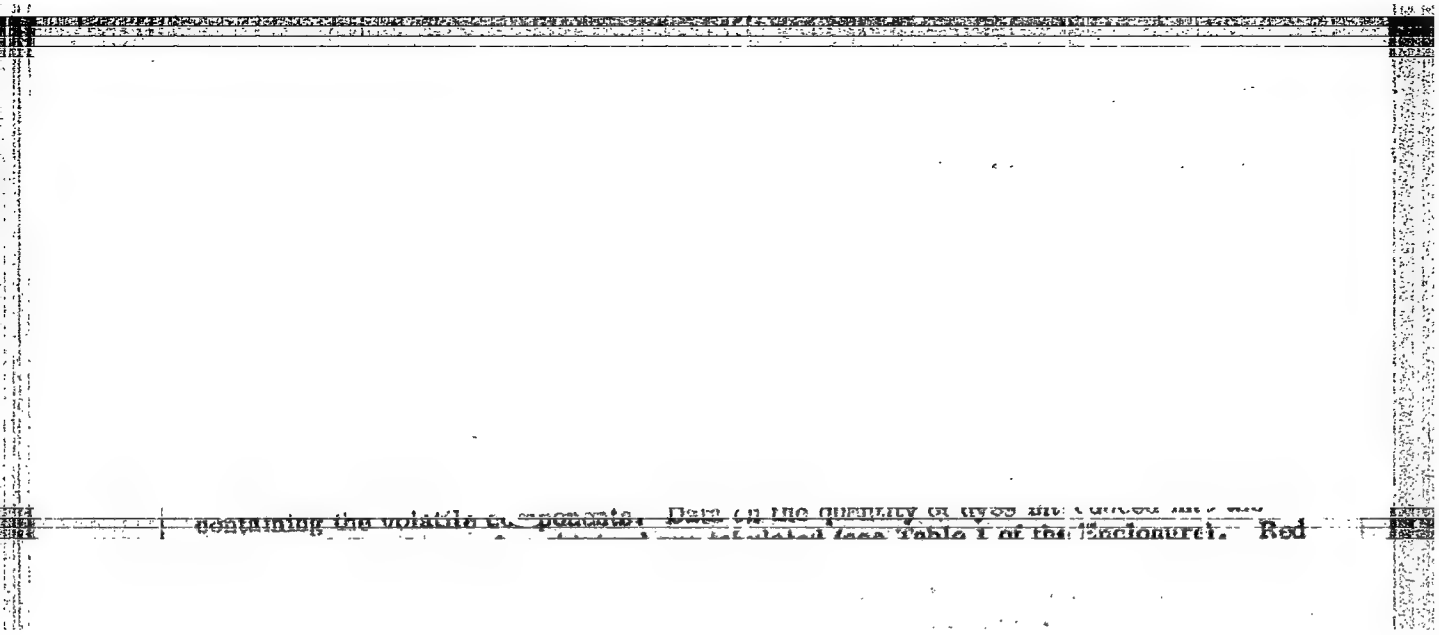
1. Kuznetskiy metallurgicheskiy kombinat (for Plekhanov, Koshkin, Kritenin, Bazhenov, Vaynshteyn, Popov, Zakharenko, Manchevskiy).
2. Sibirskiy metallurgicheskiy institut (for Grdina, Govorkov, Nesterov, Grigorkin).

(Railroads—Rails) (Rolling (Metalwork))

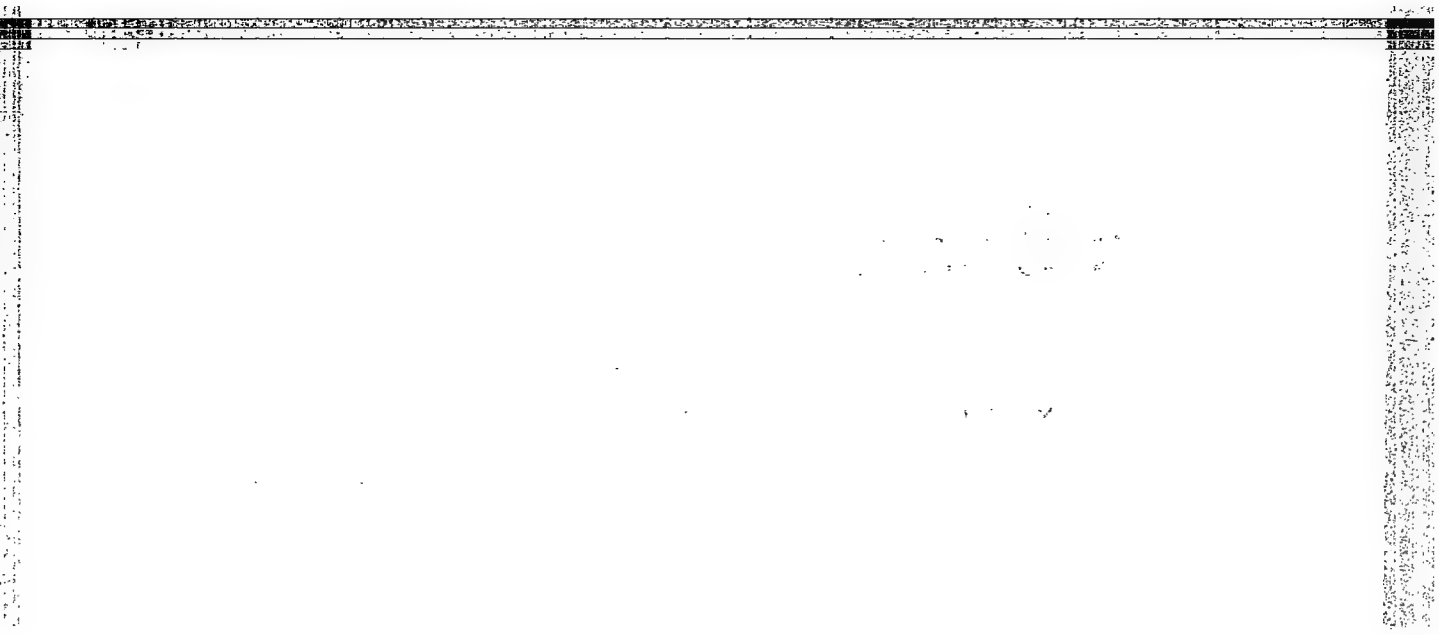
Zaiberenko, M. I. "On the Determination of the Magnetic Properties of Iron and Steel by Means of a Ballistic Apparatus." In the book: Geofizicheskie Metody Issledovaniya Zapadnoy Sibiri, Tomsk, 1955, pp. 7-113.

TSARITSYN, M.A.; ZAKHARENKO, N.I.; ODNODVORTSEV, P.Ye.; KIRYUSHKIN, A.M.; PROKOP'YEVA, Z.I.

Mechanized working of selenium ruby sheet glass. Stek. i ker. 19 no.8:16-19 Ag '62. (MIRA 15:9)
(Glass, Colored)



containing the volatile c[illegible]. Data on the quantity of [illegible] are tabulated [illegible] Table I of the Enclosure. Red



APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R001963510015-0"

CHELYSHEV, N. A.; PERMYAKOV, V. M.; KAFTANOV, M. P.; ZAYKOV, M. A.; KAMINSKIY, D. M.; ZAKHARENKO, N. I.; PROKOP'YEV, A. V.

Peculiarities of rolling rimmed steel ingots on a forge blooming mill. Izv. vys. ucheb. zav.; chern. met. 5 no.12:74-80 '62. (MIRA 16:1)

1. Sibirskiy metallurgicheskiy institut.

(Rolling(Metalwork)) (Steel ingots)

POPOV, P.G.; ZAKHARENKO, N.I.

Blooming mill in the Kuznetsk Metallurgical Combine. Metallurg 7 no.4:24-25 Ap '62. (MIRA 15:3)
(Novokuznetsk--Rolling mills)

AFANAS'YEV, S.G.; DUKHANIN, A.S.; KVITKO, M.P.; SHUMOV, M.M.;
DARUSHIN, R.I.; KOSHKIN, V.A.; ZAKHARENKO, N.I.;
KRITININ, I.A.

Railroad rails made of oxygen-blown converter steel. Stal' 24
no.1:72-73 Ja '64. (MIRA 17:2)

KOBYZEV, V.K., inzh.; ZAKHARENKO, N.I., inzh.; LASKARONSKIY, E.N., inzh.; OSCKIN, Ye.A., inzh.; USOL'TSEV, B.N., inzh.

Effect of the diameter of rolls with a grooved surface on the size and distribution of torque during metal rolling on a blooming mill. Stal' 24 no.10:899-901 O '64. (MIRA 17:12)

1. Kuznetskiy metallurgicheskiy kombinat.

CHELYSHEV, N.A.; PERMYAKOV, V.M.; KAPTANOV, M.P.; ZAYKOV, M.A.; KAMINSKIY, D.M.; ZAKHARENKO, N.I.; PROKOP'YEV, A.V.

Characteristics of rolling rail steel ingots at the Kuznetsk blooming mill. Izv.vys.uchet.zav.; chern.met. 8 no.8:94-101 '65. (MIRA 18:8)

1. Sibirskiy metallurgicheskiy institut.

FEDOROV, V.I.; ZAKHARENKO, N.M.[Zakharenko, M.M.]; STETSKIY, A.S. [Stets'kyi, O.S.]

Experimental study of the throttling of a liquid (water) by regulating devices of turbines. Zbir. prats' Inst. tepl. AN URSR no.22:21-25 '61. (MIRA 16:6)

(Hydrodynamics)

ZAKHARENKO, N. N.

An economic study of the Aldan Valley. Iakutsk, Izd. Iakutizdata, 1927. 47 p.
(50-51276)

HC487.A6Z3

ZAKHARENKO, N.

Reorganizatsiia sistemy upravleniia sovetskim transportom. [The reorganization of the administrative system of Soviet transport]. (Transport i khoz-vo, 1930. no. 5, p. 26-31).
DLC: HE7.T68

SO: Soviet Transportation and Communications. A Bibliography. Library of Congress, Reference Department, Washington, 1952, Unclassified.

ZAKHARENKO, N.; LUKANKIN, V.

Wages of mixed and shunting crews in railroad transportation. Sots. trud.no.9:57-62 S '56. (MLRA 9:12)
(Railroads--Salaries, pensions, etc.)

ZAKHARENKO, N.N., kandidat ekonomicheskikh nauk

Improving the system of rewards is an important condition for the growth of labor productivity. Zel.dor.transp. 39 no.4: 36-41 Ap '57. (MLRA 10:5)
(Railroads--Salaries, pensions, etc.)

ZAKHARENKO, Nikolay Nikolayevich; ITKIN, Lev Mendeleyevich; KRISHTAL', L.I., red.

[Ways to increase labor productivity in railroad transportation] Puti povysheniia proizvoditel'nosti truda v khoziaistve dvizheniia. Moskva, Transport, 1964. 151 p. (MIRA 17:12)

ZAKHARENKO, Nikolay Nikolayevich; LIN'KOV, M.V., retsenzent; PESKOVA, L.N., red.; VOROTNIKOVA, L.F., tekhn. red.

[Technological progress and lator productivity in railroad transportation]Tekhnicheskii progress i proizvoditel'nost' truda na Zheleznodorozhnom transporte. Moskva, Transzheldorizdat, 1962. 80 p. (MIRA 16:2)
(Railroads--Technological innovations)
(Railroads--Labor productivity)

ZAKHARENKO, Nikolay Nikolayevich, kand. ekon. nauk; YURCHENKO, I.F., retsenzent; PESKOVA, L.N., red.; USENKO, L.A., tekhn. red.

[Wages in railway transportation] Zarabotnaia plata na zheleznodorozhnom transporte. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 59 p. (MIRA 14:8)
(Railroads--Salaries, pensions, etc.)

ZAKHARENKO, N.T.

Is it necessary to fill the track spacing? Put' i put.khoz. 4 no.2:26 F '60. (MIRA 13:5)

1. Starshiy dorozhnyy master Solntsevskoy distantsii, stantsiya Solntsevo, Yuzhnoy dorogi.
(Railroads--Track)

ZAKHARENKO, N. V.

AUTHORS: Bartenev, G. M. and Zakharenko, N. V. 138-1-3/16

TITLE: The Inter-dependence of the Static Modulus and Hardness of Rubber. (Zavisimost' mezhdu staticheskim modulem i tverdost'yu reziny).

PERIODICAL: Kauchuk i Rezina, 1958, Nr.1. pp. 10 - 12 (USSR)

ABSTRACT: The static modulus of rubber (E) is the coefficient of the r a t i o between the stress σ and corresponding static deformation of the rubber ε at a given temperature and time of observation. It is characteristic for the hardness or stiffness of the rubber. The hardness of a rubber can be accurately and easily determined with an apparatus TM-2 ГООТ 263-53. The static moduli for СКС-30, СКН-26, НК, СКН-40 and СКБ-30 was investigated; carbon black was used as active filler, and chalk as inactive filler. Altogether 45 mixtures were tested. The static modulus was determined on an apparatus constructed by the Physical Laboratory of the НИИРП. According to a method developed by this laboratory (Ref.4), the hardness was determined on the hardness tester ТМ-2. It was necessary to make the following investigations: (1) The influence of the thickness of a sample on the degree of hardness. The thickness of the tested samples varied between 1 and 16 mm. It was found that the

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The Dependence of the Static Modulus and Hardness of Rubber.

hardness of a sample becomes constant and does not depend on the thickness of the lamina in 4 mm samples (for hard rubber) and in 6 mm samples (for soft rubber). (2) The minimum number of separate experiments for the determination of the hardness. The hardness number (GOST 263-53) is taken as the average result of 3 measurements. 200 measurements were carried out to determine the hardness for 6 mm thick laminae (for mixtures with and without fillers). The hardness was determined at various points of the lamina at approximately 1 cm distance. The error in the measurements decreased with increasing number of experiments. Distribution curves for rubber based on SKS-30 are given in Fig.2. All values of hardness (Figs. 1, 3, 4 and 5) were taken as an average of five measurements at various points of the lamina. In practice, however, three measurements suffice. (3) The ratio of hardness in relation to the duration of the experiment was determined (Fig.3.). For vulcanised mixtures the optimum duration of the experiments = 10-15 seconds. For mixtures of raw materials it should be not less than 100 seconds. It was concluded that (a) samples of not

The Dependence of the Static Modulus and Hardness of Rubber.

less than 6 mm thickness should be taken; (b) the samples should be removed from the apparatus 15 seconds after starting the experiment; not less than 5 determinations should be carried out. Fig.5 gives the ratio between the static modulus and the hardness of the rubber (during a 24-hour experiment) for CKC-30, CKH-26, HK, and a production sample; Fig. 6:a curve for the determination of the static modulus according to the hardness of the rubber according to Shore; Fig.7: a curve for the conversion of the hardness number according to Jones (Dzhons)(on apparatus TШM-2) into a Shore hardness number (on apparatus TM-2). There are 7 Figures and 6 References: 3 Russian, 3 English.

ASSOCIATION: The Research Institute of the Rubber Industry. (Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti).

AVAILABLE: Library of Congress.

Card 3/3

FEDYUKIN, D.L.; ZAKHARENKO, N.V.

Determining the coefficient of the resistance of rubber to low temperatures by the cantilever bending method. Trudy Nauch.-issl. inst. shin. prom. no.7:110-118 '60. (MIRA 14:8)
(Rubber--Testing)

YEDYUKIN, D.L.; ZAKHARENKO, N.V.

Determining the coefficient of frost resistance of rubbers. Kauch.i rez. 19 no.9:43-45 S'60. (MIRA 13:10)

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh izdeliy.

(Rubber--Testing)

ZAKHARENKO, N.V.; FEDYUKIN, D.L.; GOL'BERG, I.I.

Determining the durability characteristics of latex film.
Trudy Nauch.-issl. inst. shin. prom. no.7:140-147 '60.
(MIRA 14:8)

(Latex)

S/138/60/000/009/008/012
A051/A029

AUTHORS: Fedyukin, D.L.; Zakharenko, N.V.

TITLE: The Determination of the Frost-Resistance Coefficient of Rubber

PERIODICAL: Kauchuk i Rezina, 1960, No. 9, pp. 43 - 45

TEXT: An instrument is described used for the determination of the frost-resistance in rubber. It is based on the console bending method and is said to be more sensitive and accurate than the one usually applied to this purpose based on the expansion method according to ГОСТ 408-53 (GOST 408-53). The error of the instrument is ± 2%, the sensitivity 0.2 G, the reproducibility of results ± 3%. Its dimensions are relatively small: 210×280×520 mm. The relationship between the frost-resistance coefficient and the temperature was studied both by the console bending and expansion methods. The deformation of the sample is accomplished in an air medium rather than a liquid one. The former corresponds more to actual conditions of most rubber articles working on bending. The tests are conducted in the temperature range from +100 to - 170°C. The formula for the frost-resistance coefficient is given as $K = \frac{P_{45}(T_k)}{P_{45}(-T)}$, where: $P_{45}(T_k)$ is the tension at a certain angle (in this case 45°) in the sample at room temperature. $P_{45}(-T)$ is

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The Determination of the Frost-Resistance Coefficient of Rubber

the tension in the sample bent at the same angle at a given temperature. The instrument is enclosed in a heat-insulating chamber with double walls, between which a mixture of alcohol and solid carbonic acid serves as a cooling agent maintaining the temperature at +20 to -75°C. Liquid nitrogen is used to produce temperatures from -75 to -170°C. The chamber is heated to a temperature of + 20°C by connecting it with an ultrathermostat. The temperature of the chamber is checked by a thermometer. Both $P_{45}(T_k)$ and P_{45} (-T) are determined by fastening the sample into a holder of the instrument. Rubber when subjected to bending at higher temperatures loses its elasticity sooner than due to expansion. Thus higher values of K are obtained when using the expansion method. The effect of various softeners on the frost-resistance coefficient was also investigated using CK-1-30 (SK-1-30)-based rubbers. It is seen that the value of K determined by the GOST method depends little on the type of softener and equals 0.64 on the average. But in using the console bending method, the value of K changes quite considerably (0.97-0.40). It is suggested that the described instrument be used for determining the vitrification point of rubbers, plastics and other high-polymers, and also for comparative tests of the casing suitability of different rubbers and rubber-fabric samples.

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S/138/60/000/009/008/012
A051/A029

The Determination of the Frost-Resistance Coefficient of Rubber

The method for determining the vitrification point consists in first determining the relationship of the value of the stress at a given bending angle to the temperature. The linear part of the relationship curve is extrapolated on the abscissa axis and the obtained point of intersection T_g would give the vitrification point. There are 3 figures and 1 diagram.

ASSOCIATION: Nauchno-issledovatel'skiy Institut rezinovykh i lateksnykh izdeliy (Scientific-Research Institute of Rubber and Latex Articles)

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S/138/61/000/001/006/010
A051/A029

11.2314

AUTHORS: Bartenev, G. M., Zakharenko, N. V.

TITLE: Rheological Properties of Rubber Mixtures in Shearing and Expansion

PERIODICAL: Kauchuk i rezina, 1961, No. 1, pp. 24-29

TEXT: The article lists the results of an investigation into the yield point of rubber mixtures in shearing and expansion. Rubber mixtures based on sodium-butadiene rubber with different amounts of filler, both of the active and non-active variety, rubber mixtures of standard composition and commercial rubber mixtures based on various rubbers for rubber articles and footwear were studied. The shearing was obtained in a thin layer between two flat-parallel plates. The instrument and the method used were described in References 1 and 2. The expansion was carried out on a rupturing machine at a rate of motion of the lower clamp of 100 mm/min, which corresponds to a deformation rate of 0.067 1/sec. The deformation of the sample is expressed in relation to the conditional tension f or the true tension σ in the case of expansion (Fig. 1). The nature of the expansion curves depends on the

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Rheological Properties of Rubber Mixtures in Shearing and Expansion

type of rubber in the mixture (Figure 2). Table 1 shows that with an increase in the expansion rate of about ten times the yield point increases by about 25 %. The rheological curves of shear deformation and the curves of expansion were compared in order to draw a parallel between the yield processes for various forms of the state of tension (Fig. 3, a). At a constant shear tension τ = const. two types of curves are noted (Fig. 3, b): at low tensions a continuous decrease of the rate of deformation and at high tensions the curve has a minimum. The minima were noted most clearly for pure rubber-like polymers of linear structure. There is a direct correspondence between the rheological properties of the rubber mixtures in shearing and the yield point in expansion. Figure 6 shows the relationship between the shear tension in the case of $\dot{\gamma}$ = 0.01 1/sec at 82°C and the yield point in expansion for rubber mixtures at $\dot{\gamma}$ = 0.067 1/sec at 20°C, where it is seen that there is a regular connection between the viscous-fluid properties of the mixtures in shearing and expansion. Various empirical equations are used for obtaining a quantitative characteristic of the rheological properties of materials in shearing. For linear polymers (natural rubber, polyisobutylene),

Rheological Properties of Rubber Mixtures in Shearing and Expansion

the rheological curves are described by the formula:

$$\frac{\dot{\gamma}}{\tau} = ae^{\alpha/\tau/} \quad (1)$$

(Ref. 6), where $\dot{\gamma}$ is the rate gradient, $/\tau/$ is the absolute shear tension, a, α are constants. Formula 1, however, is not applicable to rubber mixtures, since in this case there is no correspondence with experimental data. For calculating the yield of these materials the following formula is recommended:

$$\dot{\gamma} = (\frac{\tau}{c})^n \quad (2),$$

where c and n are the material constants, depending on the temperature. The elasticity of the rubber mixtures expressed by Formula (2)is also expressed by the degree relationship:

$$\eta = c(\frac{c}{\tau})^{n-1} \quad (3),$$

where $\eta = \tau/\dot{\gamma}$. The relationship of the c and n constants to the temperature and degree of filling confirms the literature data (Refs. 7, 8), according

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Rheological Properties of Rubber Mixtures in Shearing and Expansion

to which the constant c depends more on the temperature than n does. The yield point determines the tension limits, below which the process of rubber treatment is actually impossible. Based on this fact, the determination of the yield point in expansion is recommended for a fast comparative evaluation of the quality of rubber mixtures. The expansion method is simple and accessible to any plant laboratory. There are 8 sets of graphs, 2 tables and 8 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti
(Scientific Research Institute of the Rubber Industry)

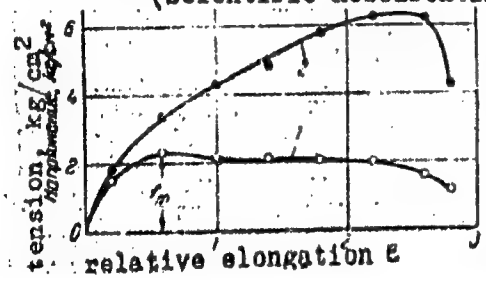

Figure 1:

Typical curve of expansion of rubber mixture:

1 - relative tension f,
2 - true tension σ.

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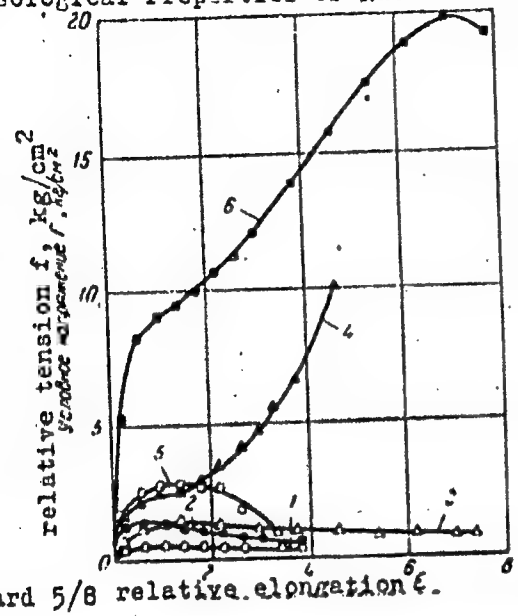
Rheological Properties of Rubber Mixtures in Shearing and Expansion



Card 5/8 relative elongation ε.

Figure 2:

Curves of expansion of rubber mixtures depending on the rubber type and filler

1 - СКБ (SKB) without filler,
2 - SKB with 50 w.p. of lamp carbon black,
3 - NR without filler,
4 - NR with 50 w.p. of channel carbon black
5 - СКН-26 (SKN-26) without filler,
6 - SKN-26 with 45 w.p. of channel carbon black.

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Rheological Properties of Rubber Mixtures in Shearing and Expansion

Table 1: Effect of the expansion rate on the yield point and the beginning of the formation of the "neck" [commercial mixture based on CKC-30 (SKS-30)]

expansion rate, mm/min	deformation rate, 1/sec	yield point f_m, kg/cm^2	relative elongation, whereby the "neck" is formed
60	0.040	2.1	2.4
100	0.067	2.2	2.5
200	0.133	2.3	2.6
300	0.200	2.7	2.7
500	0.333	2.8	2.7

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Rheological Properties of Rubber Mixtures in Shearing and Expansion

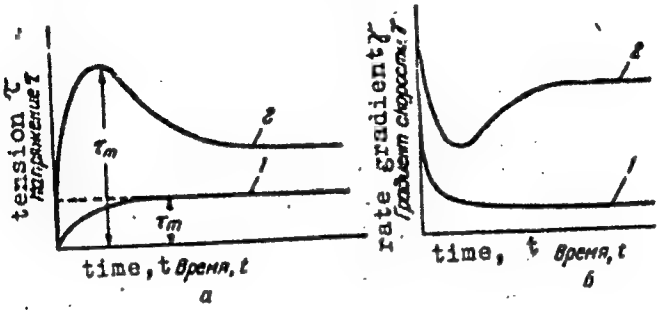

Figure 3: Typical deformation curves:
a - constant rate of shear deformation; 1 - low values of the rate gradient, 2 - high values of rate gradient,
b - constant tension of shift: 1 - low tensions, 2 - high tensions

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A051/A029

Rheological Properties of Rubber Mixtures in Shearing and Expansion

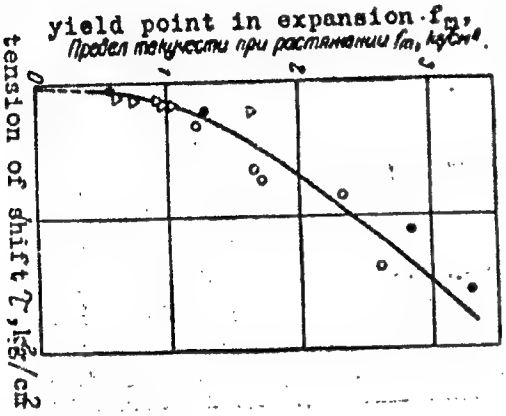

Figure 6:

Relationship between the shear tension at a rate gradient of γ = 0.01 1/sec and yield point in expansion for rubber mixtures in the case of γ = 0.067 1/sec:

● - mixture for rubber articles,
○ - mixtures for rubber footwear,
△ - model mixtures based on SKB.

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S/081/61/000/023/061/061
B106/B101

AUTHORS: Zakharenko, N. V., Fedyukin, D. L., Gol'berg, I. I.

TITLE: Determination of the stability characteristics of latex films

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1961, 562 - 563, abstract 23P365. (Tr. N.-i. in-ta shin. prom-sti, sb. 7, 1960, 140 - 147)

TEXT: The results obtained in tests of natural and polychloroprene latex (nairit Л-7 (L-7)) films prepared by ionic precipitation and by drying, were evaluated statistically. Deviations of the minimum and maximum stability values from the mean were up to 75% for films prepared by ionic precipitation, and 3 - 10% for films prepared by drying. The root mean square deviation of the stability index δ is 13 - 33%. ≤ 50% of the samples show deviations within the limits layed down by ГОСТ (GOST). Deviations of minimum and maximum specific elongation from the mean were only 1/2 to 1/3 that of the corresponding deviations in stability. Deviations of minimum and maximum thickness from the mean were up to 63%. For films of thickness ≤ 0.2 mm, the use of cutter blades with different radii of

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curvature of the working part gave a stability versus sample thickness curve which exhibited a peak around 0.2 mm thickness. The deviations from the theory (see RZhKhim, no. 23, 1955, 54852) are possibly due to traces of the fixing agent (kaolin) remaining on the films obtained by ionic precipitation, and causing microdefects there. To lower the spread of the indices, the thickness variations may not exceed ± 15%. The profile of the blade has an influence on the stability properties and the spread of the indices. Blades with 30 and 50 mm radii of curvature are the most acceptable. The type of blade affects the spread of the data, too. For reliable results, it is essential that parallel tests of 25 samples be carried out and the mean value of the stability determined with an accuracy of 0.95. The mean actual stability f_o is obtained from $f_o = f' \pm 2\sigma'/n$, where f' is the mean stability, σ' the standard, and n the number of tests. [Abstracter's note: Complete translation.]

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28803
S/138/61/000/009/008/011
A051/A129

112320

AUTHORS: Tsvetkov, A. I., Fedyukin, D. L., Zakharenko, N. V.

TITLE: A perfected instrument for the determination of the vulcanization kinetics of rubber mixtures

PERIODICAL: Kauchuk i rezina, no. 9, 1961, 31 - 32

TEXT: A description is given of the Soviet-made vulcameter, based in principle on the vulcameter manufactured abroad [Ref. 1: I. Peter, W. Heidemann, Kautschuk u. Gummi, 10, WT, 168 - 172 (1957); 11, WT, 159 - 161 (1958); Ref. 2: R. More, S. H. Morrele, A. R. Payne, Rubb. J. a. Intern. Plast., 136, no. 23, 858 (1959); Rev. Gén. du Caoutchouc, 36, no. 7 - 8, 1001 (1959)]. The Soviet machine determines the optimum of vulcanization of various rubber mixtures and records curves of the vulcanization kinetics at various temperatures [Ref. 3: Author's certificate no. 134069. Byull. izobreteniy, no. 23, Standartgiz, 1960]. The basic difference of the Soviet model is in the construction of the measuring device of the shifting force and in the method of sample fastening. The instrument consists of a clamp adjustment with an eccentric cable, recorder of force with automatic recording and a thermostatic attachment (Fig. 1). Samples 1 and 2 (30 x 25 x 2 mm)

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A perfected instrument for the determination of...

are mounted between the upper (3) and lower (4) clamps. The upper clamp is made of two parts, which move in a horizontal direction by means of a two-way screw (11). The hollow clamps circulate the heat carrier. The temperature range is determined by the type of thermostat (in this case it is the Bobser Ultrathermostat). The cam 5 creates the sign-changing deformation of the samples rotated by the motor 7 through the reductor 6 (mounted on the back wall of the instrument). The cam brings the upper clamp into motion with a constant amplitude equal to 0.2 mm and a frequency of 1 cycle per minute. The shift force is fed to the measuring device through the stationary lower clamp 4, consisting of a hydraulic dynamometer 8 with a manometric tube 9. The magnitude of the membrane shift of the dynamometer or the lower shift at a maximum permissible load of 20 kg does not exceed 0.03 mm. The automatic recording of the test results is performed by the automatic recorder 10 which permits only maximum shift forces of the deformation cycle to be recorded. An electromagnet is used to record the forces in the maximum positions; it is synchronized with the cam of the cable. Thus the instrument is able to record the change kinetics of the shift force in heating. The produced curve characterizes the relationship of the shift force to the time (Fig. 2). The instrument can also be used for determining the duration of the mixture softening,

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A051/A120

A perfected instrument for the determination of...

duration of the viscous-fluid state, estimating the beginning and rate of vulcanization. The simplicity of the contruction and saving of the rubber mixture has proven the expediency of the instrument and the method used, and tney are recommended to all rubber plants and scientific research institutes. There is 1 diagram, 1 graph and 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: R. E. Morris, J. W. Hollister, A. E. Barrott, Ind. Eng. Chem., 42, no. 8, 1581 (1955).

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh izdeliy (Scientific Research Institute of Rubber and Latex Articles)

Card 3/5

BARTENEV, G.M.; ZAKHARENKO, N.V.

Rheological properties of rubber mixtures under shear and deformation stresses. Kauch. i rez. 20 no.1:24-29 Ja '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.
(Rubber—Testing)

TSVETKOV, A.I.; FEDYUKIN, D.L.; ZAKHARENKO, N.V.

Improved device for determining the kinetics of vulcanization of compounding ingredients. Kauch. i rez. 20 no.9:31-32 S '61. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh izdeliy.

(Vulcanization)
(Rubber industry--Equipment and supplies)

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TITLE: Determination of the coefficient of frost resistance of rubbers by the "cantilever bending" method

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1962, 652, abstract 5P354 (Tr. N.-i. in-ta shin. prom-sti, sb. 7, 1960, 110-118)

TEXT: The frost-resistance coefficient of rubbers is determined by cantilever bending as the ratio of the force required to bend the specimen through a given angle of ~20° to the bending force at a given temperature. The results have a reproducibility of ± 3 %. Sensitivity is within 0.2 g. The load on the specimen is applied hydrostatically. Specimens measuring 45 x 10 x 2 mm are stamped out from sheets with a cutting knife. The frost-resistance coefficient depends on the angle of bend; as this angle increases, so the frost-resistance coefficient diminishes. The frost-resistance coefficient is not affected if the thickness of the specimen is increased from 2 to 3 mm. Determination of the frost-resistance coefficient by this method is more sensitive to the formulation (e.g.,

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Determination of the coefficient...

softener or plasticizer) than determination by the method laid down in GOST 408-53 (GOST 408-53). For determinations of the frost-resistance coefficient of rubber components which have to work under bending stress the "cantilever bending" and not the "stretching" method should be used. The proposed apparatus can be used for determining the vitrification temperature of raw and vulcanized rubbers (from a bending-force/temperature graph), the bending strength of specimens of rubber, rubberized fabric, etc., the resistance to heat of plastics, rubbers, etc. For this purpose, the heat cabinet is connected to the heat-carrying agent or to an installation containing liquid N_2. The operational temperature range of the apparatus is from -170 to 100°C. [Abstracter's note: Complete translation.]

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FEDYUKIN, D.L.; ZAKHARENKO, N.V.; OREKHOVA, N.I.

Determining the toe stiffness of miner's boots. Kauch.i rez. 21 no.3:56-57 Mr '62. (MIRA 15:4)

1. Nauchno-issledovatel'skiy institut rezinovoykh i lateksnykh izdeliy.
(Boots and shoes, Rubber--Testing) (Clothing, Protective)